



SKYWARN NEWSLETTER

NOAA's National Weather Service
Pittsburgh, PA
Spring 2010



NEW SEVERE THUNDERSTORM WARNING CRITERIA!

As of January 5th of this year, the National Weather Service has officially changed part of the criteria it uses to issue Severe Thunderstorm Warnings. With the new criteria in place, the minimum size for severe hail nationwide has been increased from three quarter inch (penny-size) diameter to one inch (quarter-size) in diameter. Therefore, Severe Thunderstorm Warnings are now issued for thunderstorms forecast to produce wind gusts to 58 miles per hour (50 knots) or greater and hail quarter-size in diameter or greater.

So how will this impact our spotters? We still encourage spotters to report hail, no matter its size. Reporting hail of half of an inch to seven eighths of an inch (nickel-size) in diameter hail provides a ground truth for our forecasting staff which can help us determine whether a storm is strengthening or weakening. A storm that is producing nickel-size hail that is strengthening would likely need a Severe Thunderstorm Warning to be issued. This vital information can help save lives and protect property. We also ask our spotters to use clear and concise descriptions when reporting severe weather. There can sometimes be confusion as to whether hail is a quarter of an inch in diameter or the size of a quarter. Thus, when reporting severe hail that is one inch in diameter, state the hail is the size of a quarter. That can make a huge difference for warning forecasters. Please clarify the diameter of the hail, if it's a quarter of an inch, it can be described as pea size. If it's one inch, it can be described as one inch in diameter or the size of the quarter coin.



HAIL SIZE CLASSIFICATION

Description	Size	Description	Size	Description	Size
Pea	0.25"	Half Dollar	1.25"	Baseball	2.75"
Mothball	0.50"	Walnut / Ping Pong Ball	1.50"	Tea Cup	3.00"
Penny	0.75"	Golf ball	1.75"	Grapefruit	4.00"
Nickel	0.88"	Hen Egg	2.00"	Softball	4.50"
Quarter	1.00"	Tennis Ball	2.50"		

*When reporting hail, always report your location (including county), the largest stone diameter, and the time the hail started and ended.

FULL SET OF SKYWARN CLASSES ANTICIPATED FOR NEXT SPRING

We had to once again offer an abbreviated class schedule this spring. However, we should be fully staffed and ready to go for next spring. There may be a class or two offered this fall, however, we are just not sure at this time. The best thing to do is to periodically check our website under SKYWARN. Any formalized classes will be posted there.

ONLINE SPOTTER REPORTS

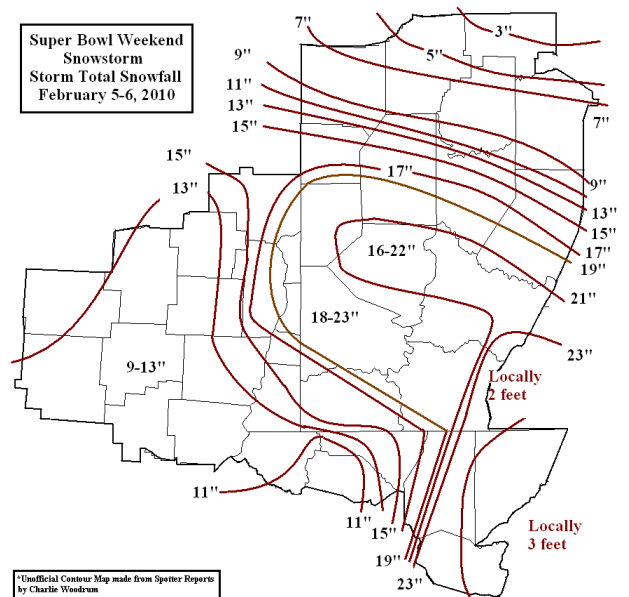
Thanks to all those SkyWarn™ spotters that have sent online reports to our office. Remember, the best way via the internet to get us information in real time is to use E-SPOTTER. If you send an e-mail to PBZ-Skywarn@noaa.gov, we will probably not see it until several days after the fact. You can register for E-SPOTTER at <http://espotter.weather.gov> and you should be a trained spotter to register. The e-mail site (PBZ-Skywarn@noaa.gov) is normally used for SkyWarn™ administrative purposes. For example, you lost your SkyWarn™ ID card and you need a new one, or you have changed your address or telephone number and you want us to adjust it in our database. You can also send photos into to PBZ-Skywarn@noaa.gov, but let us know your report first by giving us a call. We've received some excellent photos through e-mail and we hope to incorporate some in future SkyWarn™ classes. A new email address PBZ-Public@noaa.gov has recently been added for those who have not yet become official SkyWarn™ spotters. We encourage our spotters to submit photos and video to these email addresses as they provide not only ground truth information which is valuable to forecasters, but also are helpful in verification efforts. This information also provides us additional media to support training spotters on identification of weather hazards and phenomena common to the area.

A RECORD-BREAKING SNOWSTORM

A large area of low pressure moved north from the Gulf of Mexico on February 5th and combined with low pressure across the Ohio Valley to produce the fourth largest snowfall on record for Pittsburgh. The system tapped into a significant amount of gulf moisture which allowed for a prolonged snowfall event. Moderate to heavy snow bands with 1 to 2 inch per hour snowfall rates began to move into the area during the afternoon hours of February 5th and continued into the morning hours of February 6th. This historic snow storm had significant impacts across western Pennsylvania, northern West Virginia, Garrett county Maryland, and eastern Ohio. Over 2 feet of snow fell across portions of Garrett county Maryland, and in Preston and Tucker counties in West Virginia, with locally 3 feet in some locations. Storm totals ranged from 37 inches in Friendsville, MD to 22 inches in Terra Alta, WV. Across Pennsylvania, 18 to 24 inches of snow fell roughly between an area from State Route 422 and Interstate 70, with 21.1 inches of snow falling in Pittsburgh. The snow was wet and heavy in Pittsburgh and areas south, bringing down trees and power lines with around 200,000 people without power after the storm. Roads were not passable for 2 to 3 days in some locations, and power was not restored to some homes until 3 days after the storm.

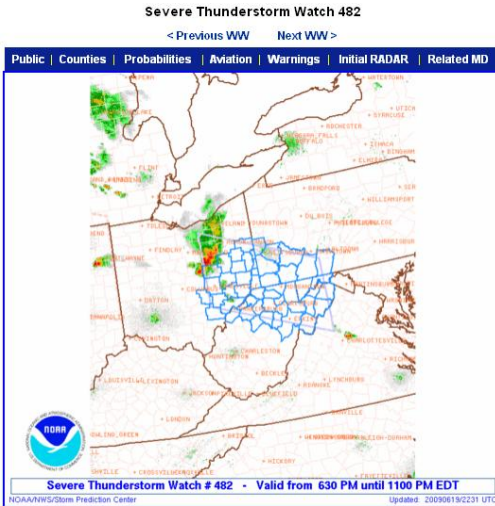
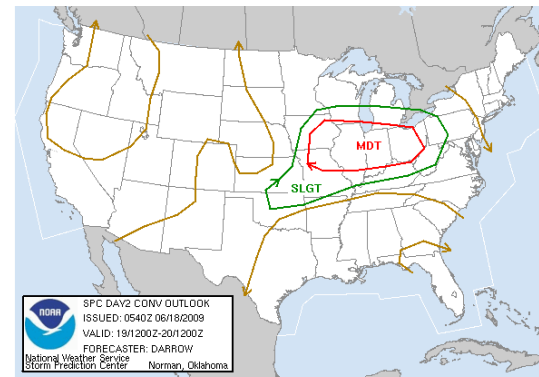
This snow storm set daily snowfall records in Pittsburgh for both February 5th and 6th. On February 5th, 11.4 inches fell, the most ever for a single day in February. This storm became a large contributor to what was the snowiest month on record for Pittsburgh with 48.7 inches.

Our spotters provided us real-time information throughout the storm which helped us issue timely forecast products and Public Information Statements. Great job and thank you spotters!



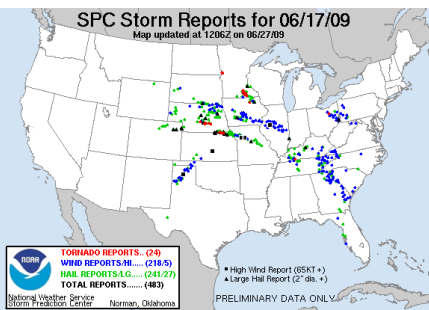
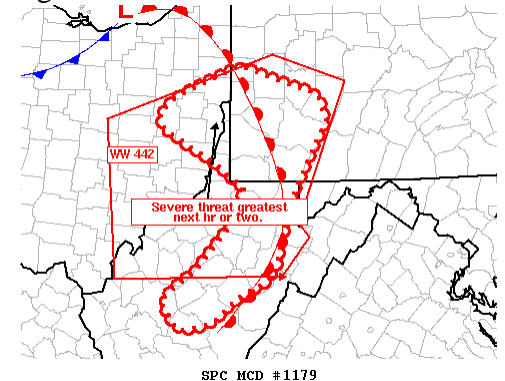
STORM PREDICTION CENTER PRODUCTS

Convective Outlooks- The convective outlooks serve as guidance to the local NWS forecast offices and are used by emergency managers, private sector meteorologists, media, and other weather customers concerned with public safety. Three separate risk areas (slight, moderate, and high) are used to describe the expected coverage and intensity for the categorical severe weather threat on days 1-3 along with severe weather probabilities for the potential threat.



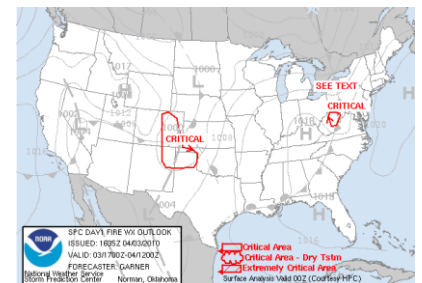
Watches- When conditions become favorable for organized severe thunderstorms and tornadoes to develop, the Storm Prediction Center (SPC) issues a severe thunderstorm or tornado watch. A tornado can occur in either type of watch, but tornado watches are issued when conditions are especially favorable for either multiple and/or strong tornadoes. Watches encourage the general public to stay alert for changing weather conditions and possible warnings. For emergency managers, storm spotters, and the broadcast media, watches provide valuable lead time to gear up operations and increase staffing. Although the general watch area is approximated through the issuance of a parallelogram, the actual watch is issued by counties and collaborated with local NWS offices. Therefore, some counties in the watch may be outside the parallelogram, while some counties in the parallelogram may not be in the actual watch issuance. The watch issued by counties provides a more precise area for the severe threat than the parallelogram.

Mesoscale Discussions- When conditions appear favorable for the development of severe storms, SPC issues a Mesoscale Discussion (MCD) normally 1 to 3 hours before issuing a weather watch. SPC also puts out MCDs for mesoscale aspects of hazardous winter weather events including heavy snow, blizzards, and freezing rain (see below). MCDs are also issued on occasion for heavy rainfall or convective trends.



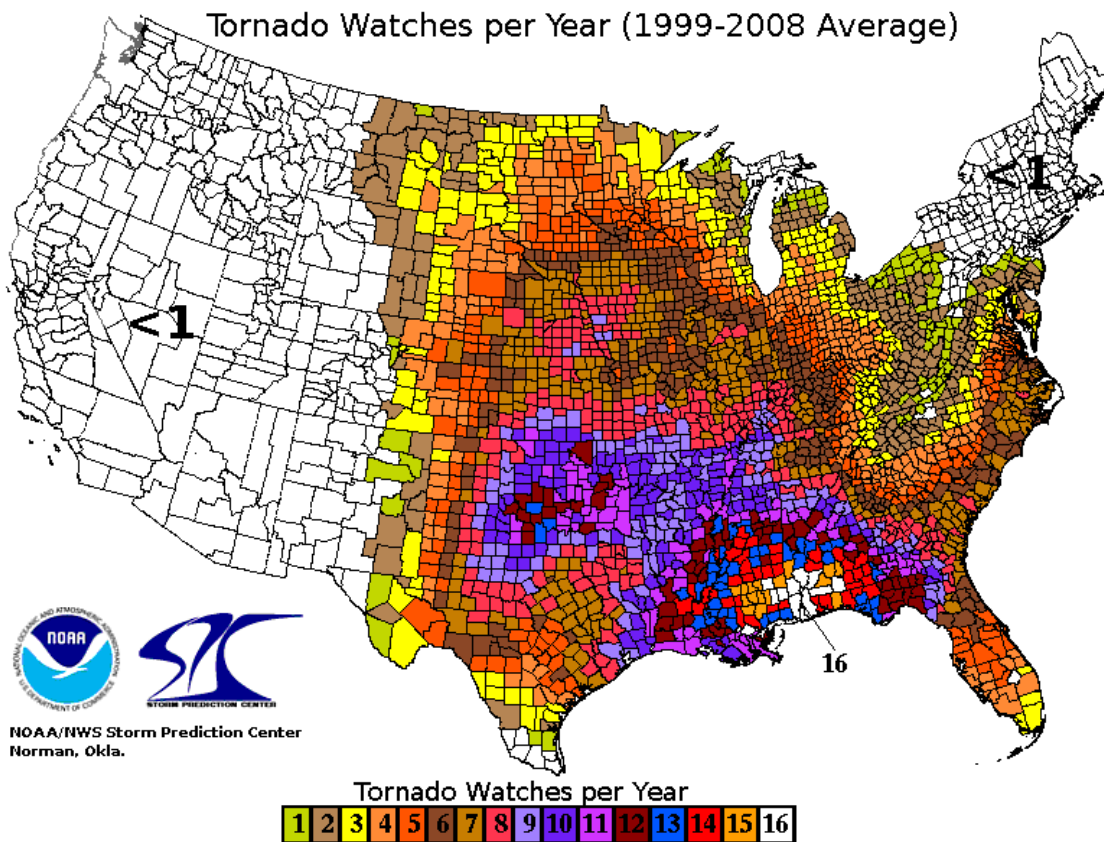
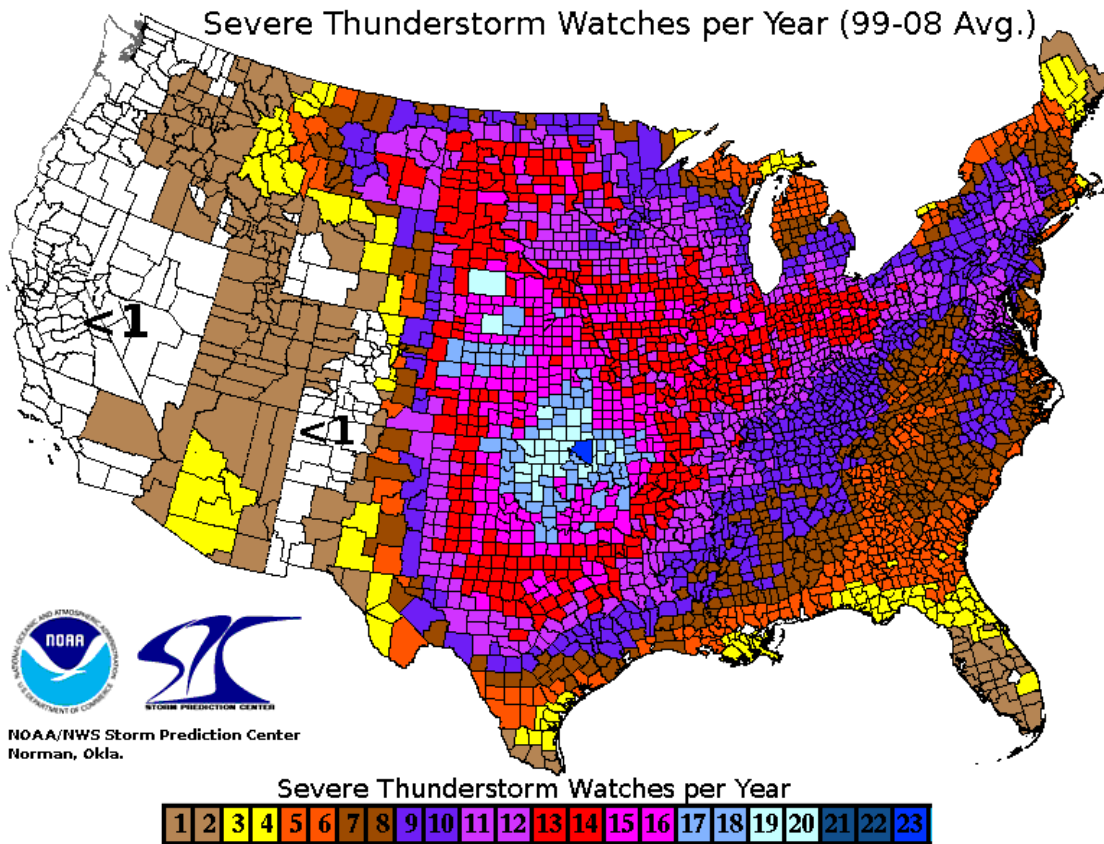
Storm Reports- The log is a raw listing of all continental U.S. severe weather reports that SPC received during the 24 hour period from 6:00 AM CST the previous day up until 6:00 AM CST on the day of issuance. This is only a preliminary list. Reports are lumped under three basic categories: tornado reports, large hail/strong wind reports, and other severe reports.

Fire Weather- The purpose of the SPC Fire Weather program is to provide a national fire weather guidance product for use by the National Weather Service, as well as other federal, state, and local government agencies. The product is intended to delineate areas of the contiguous U. S. where the pre-existing fuel conditions, combined with forecast weather conditions during the next 8 days will result in a significant threat for wildfires.



Check out all of these Storm Prediction Center products at <http://www.spc.noaa.gov>

CONVECTIVE WATCHES OVER 10 YEARS



On average through this period, 11-12 severe thunderstorm watches and 1-2 tornado watches were issued per year across the Pittsburgh County Warning Area (CWA).

WHAT TO REPORT

Try to report as soon as possible after observing the event and, remember to be careful! It is important that you remain calm and concise in manner when delivering your report. Also, if possible, please give us your location relative to the closest city or town as well as your county and the time of the event. (For example: "This is SkyWarn™ Spotter FA999 reporting golf ball sized hail in Fayette County, about 3 miles southeast of Uniontown at 7:27 PM.)

SNOWFALL - After 2 inches of new snow, and then at 4 inches, 6 inches, and every 3 inches thereafter (e.g., 2, 4, 6, 9, 12, etc.)

FREEZING RAIN - As soon as you observe the occurrence of freezing rain or freezing drizzle, especially if it starts to collect on objects. Call again if the glaze/ice accumulation exceeds 1/4 inch

THUNDER SNOW - Location and time of occurrence

WIND SPEEDS - Report wind speeds greater than 40 mph

RAINFALL - Report any rainfall in excess of one inch in an hour

FUNNEL CLOUD - A "rotating" appendage descending from the base of a cumulonimbus cloud, but not touching the ground. If possible, always look at the area beneath the funnel cloud for flying debris. If flying debris is observed, it is a tornado.

TORNADO - Violently rotating column of air descending from a cumulonimbus cloud (often extending from a wall cloud) and touching the ground. Look for flying debris. If possible, report any injuries or fatalities. Tornadoes usually rotate counterclockwise, and this can be a good indicator if what you are observing is a tornado or other meteorological phenomena. However, this is not always true. When in doubt, report!

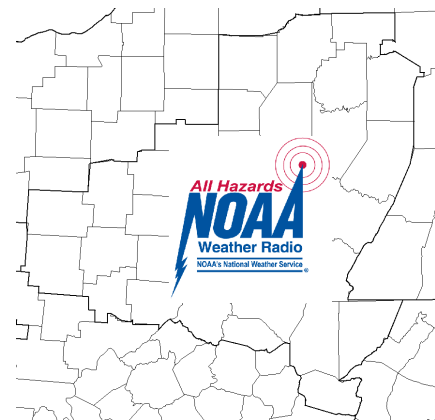
HAIL - Report any size hail. Specify the diameter based on the hail scale (coins). When in a thunderstorm that is producing hail, report the size of the largest hailstone.

FLOODING - Report any flooding you observe, including basement, road, stream, creek, and ice jam flooding. Report the name of the stream/creek, road number/name (if applicable) and depth. Please inform us of any high water or flooding that results in evacuations. Also report roads closed due to high water.

DAMAGE - Report all storm-related damage (large branches, fallen trees, structural damage, flood damage, etc.) Even if it is several days after the event.

NOAA WEATHER RADIO FREQUENCIES

Pittsburgh, PA (162.550 MHz)
Parker, PA (162.425 MHz)
High Hill, OH (162.475 MHz)
Bridgeport, OH (162.525 MHz)
Backbone Mountain, WV (162.450 MHz)
Gregg Knob, WV (162.500 MHz)
Morgantown, WV (162.475 MHz)
Punxsutawney, PA (162.500 MHz)
New Philadelphia, OH (162.425 MHz)



The Enhanced Fujita (EF) Scale

EF0 (65-85 MPH).....Some damage to chimneys and signs, branches break off, shallow rooted trees pushed over.

EF1 (86-109 MPH).....Surfaces peeled off roofs, mobile homes overturned, automobiles pushed off road.

EF2 (110-137 MPH).....Roofs torn from frame houses, mobile homes demolished, large trees uprooted.

EF3 (138-167 MPH).....Roofs and some walls torn off well built houses, trains overturned, most trees uprooted, heavy cars lifted off the ground and thrown.

EF4 (168-199 MPH).....Well built houses leveled, structures with weak foundation blown some distance, cars thrown and large missiles generated.

EF5 (200-234 MPH).....Strong frame houses lifted off foundations and disintegrated, and debris carried considerable distances, automobile-sized debris flies through the air in excess of 300 feet.

<i>Original Fujita Scale</i>		<i>Enhanced Fujita Scale</i>	
F0	40-72 mph	EF0	65-85 mph
F1	73-112 mph	EF1	86-110 mph
F2	113-157 mph	EF2	111-135 mph
F3	158-206 mph	EF3	136-165 mph
F4	207-318 mph	EF4	166-200 mph
F5	261-318 mph	EF5	>200 mph

PITTSBURGH SKYWARN LIST GROUP

It's a great way for SkyWarn™ spotters in our area to stay connected, share information, discuss the weather, share files and pictures, and more! To join, just visit http://www.yahoo.com/groups/skywarn_pittsburgh.

SOME GREAT WEBSITES TO STAY AHEAD OF THE WEATHER

In case you didn't get these web sites in SkyWarn™ class:

E-SPOTTER = <http://espotter.weather.gov>

Spotter E-mail = PBZ-Skywarn@noaa.gov

Public Spotters = PBZ-Public@noaa.gov

NWS Pittsburgh = www.erh.noaa.gov/er/pbz

NOAA Weather Radio = www.nws.noaa.gov/nwr

Hydrometeorological Prediction Center = www.hpc.ncep.noaa.gov

NOAA/NWS Online Weather School = www.srh.noaa.gov/jetstream

AHPS River Flood monitoring = www.weather.gov/ahps

Basic SkyWarn™ brochure (for downloading) = www.nws.noaa.gov/om/brochures/basicspot.pdf

Advanced SkyWarn™ brochure (for downloading) = www.nws.noaa.gov/om/brochures/advspg.pdf

Also, remember that we have a 5-year recertification. We would like all of our SkyWarn™ spotters to attend a class at least once every 5 years.

THANKS TO ALL OF OUR SPOTTERS!!!

Your reports save lives! We appreciate your participation and support.

Newsletter Editor: Charlie Woodrum, Journeyman Forecaster
Record Snowfall Contribution: Rodney Smith, Lead Forecaster

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